IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for filtering comprising adaptive filtering an input signal,~~signal (x(n)),~~ interpolating ~~the filtered~~a filtered signal, interpolating the input signal ~~(x(n))~~ for adapting the adaptive filtering, ~~characterised in thatwherein~~and adapting ~~the~~ properties ~~of the~~of an interpolation of the filtered signal.~~signal are adaptable.~~

2. (Currently Amended) The method according to claim 1,~~characterised in thatwherein it comprises~~ comprising providing a reference signal,~~signal (d(n)+z(n)),~~ and ~~combining the~~combining an interpolated filtered signal and the reference signal for forming an error signal.~~signal (e(n)).~~

3. (Currently Amended) The method according to claim 2,~~characterised in thatwherien~~ comprising adapting the properties of the interpolation ~~properties are adapted~~according to the error signal~~(e(n))~~ and the interpolated filtered signal.~~signal (Yi(n)).~~

4. (Currently Amended) The method according to claim 2~~or 3, characterised in thatwherein~~ comprising adapting the properties of the interpolation ~~properties are adapted~~by changing at least one coefficient of the interpolation.

5. (Currently Amended) The method according to claim 4,~~characterised in thatwherein~~ comprising adapting the at least one coefficient of the interpolation ~~is adapted~~by using a normalized least mean square algorithm, wherein the method further comprises using the error signal and the interpolated filtered signal ~~are used~~as inputs for the algorithm.

6. (Currently Amended) The method according to claim 2~~any of the claims 2 to 5, characterised in thatwherein it~~ comprising:~~comprises the following steps:~~

a) computing the filtered ~~output by~~signal by an equation

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$y\ (n) = W^t(n)X(n);$

b) computing the interpolated filtered signal ~~by~~by an equation
$Y_I\ (n) = I^t(n)Y(n);$

c) adapting ~~the~~interpolation coefficients of an interpolator by an~~by~~ equation

$$I(n+1)=I(n)+\frac{\mu_I}{\varepsilon+Y^t(n)Y(n)}e(n)Y(n)$$

where μ_I ~~is the~~is a step-size used to adapt the coefficients of the interpolator, $e(n)$ ~~is the~~is an output error, $I(n) = [i(n)_1, i(n)_2, ..., i(n)_M]^t$ ~~is the~~is an $M \times 1$ vector containing the interpolation coefficients of the interpolator, $Y(n) = [y(n), y(n-1), ..., y(n - M + 1)]^t$ ~~is the~~is a vector of ~~the~~past M samples from the filtered signal $y(n)$, and ε is a ~~small~~constant;

d) computing the output error $e(n)$ ~~by~~by an equation
$e(n) = d(n) + z(n) - y_I(n);$

e) computing ~~the filtered~~a filtered input vector $X_I(n)$ ~~by~~by an equation
$$X_I(n)= \sum_{j=0}^{M-1} i_j X(n - j);\ \text{and}$$

f) updating filtering weights ~~by~~by an equation
$W(n+1)= F\{W(n)+ \mu e(n)X_I(n)\}+q.$

7. (Currently Amended) The method according to ~~any of the claims~~claim 1 ~~to 6, characterised in that~~wherein comprising using finite impulse response filtering ~~is used~~in said adaptive filtering.

8. (Currently Amended) An apparatus ~~(1)~~ comprising
an adaptive filter ~~(2)~~ for filtering an input signal;~~signal (x(n));~~
a first interpolator ~~(3)~~ for interpolating ~~the filtered~~a filtered signal; ~~signal,~~
a second interpolator ~~(7)~~ for interpolating the input signal, ~~signal (x(n)),~~ wherein ~~the interpolated~~an interpolated input signal is arranged to be used to adapt the adaptive ~~filter (2)~~filter; and ~~characterised in that~~wherein ~~the apparatus (1) further comprises~~

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a first adapting block ~~(4)~~ for adapting the properties of the first ~~interpolator~~interpolator. ~~(3)~~.

9. (Currently Amended) The apparatus ~~(1)~~ according to claim 8~~,~~ ~~characterised in that~~wherein ~~it~~ also ~~comprises~~comprising an input ~~(5.2)~~ for receiving a reference signal,~~signal (d(n)+z(n)),~~ and a combiner ~~(5)~~ for ~~combining the~~combining an interpolated filtered signal and the reference signal for forming an error signal.~~signal (e(n)).~~

10. (Currently Amended) The apparatus ~~(1)~~ according to claim 9, ~~characterised in that~~wherein the ~~interpolation~~ properties are arranged to be adapted according to the error signal ~~(e(n))~~ ~~and the~~and an interpolated filtered signal.~~signal (Y$_i$(n)).~~

11. (Currently Amended) The apparatus ~~(1)~~ according to claim 9, ~~claim 9 or 10,~~ ~~characterised in~~ ~~that~~wherein the first adapting block ~~(4)~~ is ~~arranged~~ adapted to change at least one coefficient of the first ~~interpolator (3).~~interpolator.

12. (Currently Amended) The apparatus ~~(1)~~ according to claim 11, ~~characterised in that~~wherein the first adapting block ~~(4)~~ is ~~arranged~~adapted to use a normalized least mean square algorithm to adapt the at least one coefficient of the first ~~interpolator (3)~~interpolator, wherein the error signal and the interpolated filtered signal are arranged to be used as inputs for the algorithm.

13. (Currently Amended) The apparatus ~~(1)~~ according to claim 8, ~~any of the~~ ~~claims 8 to 11,~~ ~~characterised in that~~wherien ~~it~~ also ~~comprises~~comprising a second adapting block ~~(6)~~ for ~~adapting the~~adapting properties of the adaptive filter.~~filter (2).~~

14. (Currently Amended) The apparatus ~~(1)~~ according to claim 8,~~any of the~~ ~~claims 8 to 13,~~ ~~characterised in that~~ wherein said adaptive filter ~~(2)~~ is a FIR filter.